



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,982	01/25/2001	Chi-Sheng Chang	E0882	5417

7590 07/20/2004

M. David Galin  
Renner, Otto, Boisselle, & Sklar, L.L.P.  
1621 Euclid Avenue, 19th Floor  
Cleveland, OH 44115

EXAMINER
----------

SHEW, JOHN

ART UNIT	PAPER NUMBER
2664	4

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/769,982

Applicant(s)

CHANG ET AL.

Examiner

John L Shew

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 9-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

Page 4 line 16 cites "Application \_\_\_\_\_, filed \_\_\_\_\_" are missing reference entries.

Appropriate correction is required.

### ***Claim Objections***

2. Claim 7 is objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "in accordance with a home phonline network alliance (HPNA) specification" is indefinite for failing to indicate the particular version of HPNA.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2664

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Szczepanek et al.

Claim 1, Szczepanek teaches a networking interface device for coupling a system host having one of a plurality configurations to a network medium (FIG. 1, Abstract lines 1-8) referenced by LAN Controller Subsystem coupling a PCI bus 12, MII bus 14, VG bus 40, Fast Ethernet bus 42 and 10BaseT Ethernet bus 44, comprising a peripheral component interconnect (PCI) interface for coupling the interface device to a system host configured with a PCI based system bus interface (FIG. 2) referenced by Transfer Controller 46 coupling to PCI bus, a medium independent interface (MII) for coupling the interface device to a system host configured with a media access controller (MAC) based system bus interface (FIG. 1, FIG. 2, column 4 lines 40-57) referenced by MII interface components CSMA/CD State Machine 54 MUX 58 and VG State Machine 56 which supply the MII interface lines 14 coupled to MAC interface VG PHY 16, a PCI control block for managing network data packet traffic exchange between the interface device and the system host (FIG. 2) referenced by FIFO Management Registers 50, and an MII attachment coupled between the MII and the PCI control block the MII attachment reformatting management data packets such that the MAC based system bus interface appears to be a PCI based system bus interface by the PCI control block

(FIG. 2) referenced by components Serializer/Deserializer Address Compare unit 52 and FIFO RAM 48 which translates messages between MII and PCI formats.

Claim 8, Szczepanek teaches a method of operably coupling a system host to a network medium using an interface device (FIG. 1) referenced by Multiprotocol LAN Controller 10 coupling a system host on a PCI interface 12 to a network medium interface 10BaseT Ethernet PHY 44, the system host having a peripheral component interconnect (PCI) based system bus interface (FIG. 1) referenced by PCI interface 12, or a media access controller (MAC) based system bus interface (FIG. 2) referenced by VG PHY 40 which has a PMI/MAC 22 interface, the method comprising the steps of detecting the type of system bus interface of the system host (FIG. 12, column 8 lines 4-9) referenced by the detection by the VG MAC State Machine 102 of data reception, receiving management data from the MAC based system bus interface for controlling network data packet exchange between the MAC based system bus interface and the interface device (FIG. 12, column 8 lines 45-50) referenced by the Management Block 110 providing control signal lines, and reformatting the management data for receipt and processing by a PCI control block (FIG. 2) referenced by FIFO Management Registers as the PCI control block which receives the management data after reformatting through the Serializer/Deserializer unit 52.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Szczepanek as applied to claim 1 above, in view of Walsh.

Claim 2, Szczepanek teaches a multi-protocol LAN controller for PCI and MII interfaces. Szczepanek does not teach an MII attachment using two receive buffers. Walsh teaches the use of a first receive buffer and a second receive buffer (Fig. 3) referenced by Buffer 1 315A and Buffer 2 315B, and network data packets received over the network medium are written to the first receive buffer (Fig. 3) referenced by data from Communications Medium Interface 1 220A sent via Bus Interface Unit 320 to Buffer 1 315A, and when the first receive buffer is full the data written to the first receive buffer is transmitted to the system host (column 7 lines 6-18) referenced by transfer of buffer contents to main memory over the PCI bus.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the multi-buffer structure of Walsh to the FIFO RAM unit of Szczepanek's multi-protocol LAN controller for the purpose of optimal resource usage.

Art Unit: 2664

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Szczepanek and Walsh as applied to claims 1, 2 above, and further in view of Gluyas et al.

Claim 3, Szczepanek and Walsh teach a multi-protocol LAN controller for PCI and MII interfaces using a multi-buffer structure. They do not teach alternating data transmission. Gluyas teaches as data is transmitted from the first receive buffer, newly incoming network data packets are written to the second receive buffer (Fig. 5, column 2 lines 11-18) reference by first buffer transmitting data while second buffer is receiving data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the alternating buffer structure of Gluyas to the multi-buffer LAN Controller of Szczepanek and Walsh for the purpose of more efficient data transmission.

***Allowable Subject Matter***

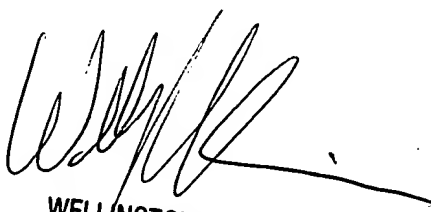
6. Claims 4-5 and 9-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Shew whose telephone number is 703-305-8708. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

js



WELLINGTON CHIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600